

The new subspecies intergrades with *Pecten eboreus eboreus* Conrad and *P. eboreus darlingtonensis* Dall, but it is more closely related to the former than to the latter. The left valve of the new subspecies is more inflated than the same valve of either of the above subspecies, and it is marked with incised ribs which neither one possesses.

Other occurrence in North Carolina: Station 12035 (lower bed), station 13814 (upper bed), Colerain Landing, Bertie County; station 1/1230, Tar Ferry, Wiccacon Creek, Hertford County; station 13798, upper bed at Beaver Dam Creek, Martin County; station 12004, Poplar Landing, Martin County.

The beds in which the new subspecies occurs are placed in the uppermost Miocene of North Carolina and are believed to have been deposited at a little later time than the Suffolk beds in Virginia at the north and about the same time as the Dupoin marl at the south.

ZOOLOGY.—*Notes on Chinese spiders of the families Salticidae and Thomisidae.*¹ IRVING FOX. (Communicated by C. F. W. MUESEBECK.)

The following notes and descriptions of new species represent continuation of a report on several collections of Chinese spiders in the possession of the United States National Museum. These spiders were collected chiefly by Dr. D. C. Graham in Szechwan Province, China, during the years 1923 to 1930. Several others taken by Mr. N. Gist Gee at Soochow, Kiangsu Province, are also considered in this paper.

Family SALTICIDAE

Myrmarachne grahami, n. sp.

Figs. 1, 2

Female.—Total length, 7.13 mm. Chelicerae, .72 mm long. Carapace, cephalic part, 1.39 mm long, 1.29 mm wide, thoracic part, 1.29 mm long, 1.09 mm wide. Pedicel, .59 mm long. Abdomen, 3.97 mm long, 1.98 mm wide. Dorsum of the carapace dark brown, sides with a blackish tinge. The furrow that separates the two parts bears white wedge-shaped marks. Chelicerae brown, much lighter than the carapace. Endites orange with fringes of dark hair anteriorly, labium dark basally, whitish distally. Sternum dark brown contrasting strongly with the coxae which are yellowish. Legs orange; upper portion of the femora, the patellae, and tibiae of legs I with distinct dark longitudinal bands at the lateral surfaces; legs II having much less distinct lateral bands; legs III without lateral bands but with the coxae and femora darker at their distal ends. Dorsum of the abdomen blackish with numerous golden hairs, basally with an indistinct transverse stripe. At the basal third clear transverse light bands, one on each side, extend laterad from the dorsum, broaden at the sides and finally are lost in the light

¹ Received April 11, 1936.

venter. The venter bears a broad dark longitudinal band extending from the epigastric furrow to the spinnerets.

First row of eyes recurved, the eyes more or less contiguous, the median twice as large as the lateral. Ocular quadrangle wider than long (31/28), occupying about one-third the total length of the carapace. The eyes of the second row very small, closer to the anterior laterals than to the posterior laterals. Upper margin of the chelicerae armed with six teeth of which five are robust while the basal is weak, lower margin armed with seven teeth of which the basal five are close together while the other two are separated.

First pair of legs with 2-2-2-2 spines on the tibiae below, and 2-2 on the metatarsi below. Second pair of legs with 2-2-2 spines on the tibiae below and 2-2 spines on the metatarsi below. The third and fourth pairs are without spines. Legs, I, 4.18 mm; II, 2.96 mm; III, 3.52 mm; IV, 5.16 mm. For the structure of the epigynum see Fig. 2.

Type Locality.—China: female holotype from Suifu, Szechwan, Province 1000 ft., April 25, 1930 (D. C. Graham). Female paratype from Soochow, Kiangsu, Province (N. Gist Gee). *Type*: U.S.N.M. Cat. No. 1163.

This spider is related to *M. japonica* (Karsch) and resembles it in general coloration. It differs from that species, however, in the structure of the epigynum.

Myrmarchne gisti, n. sp.

Figs. 4, 9, 12, 14

Female.—Total length, 8.02 mm. Chelicerae, .8 mm long. Carapace, cephalic part, 1.20 mm long, 1.16 mm wide, thoracic part, 1.36 mm long, .92 mm wide. Pedicel, 1.12 mm long. Abdomen, 3.86 mm long, 2.57 mm wide. Dorsum of the carapace dark and reddish brown, the cephalic part much darker than the thoracic and contrasting strongly with it. In the furrow that separates the two parts is found a wedge shaped mark on each side. Chelicerae concolorous with the thoracic part being reddish brown. Palpi with the basal joints brown while the distal have a bluish tinge and are distinctly iridescent. Labium and endites brown, sternum somewhat darker. Legs I clear whitish yellow above and below, with distinct bands on the prolateral surfaces of the basal portion of the femora, the patellae, tibiae, and metatarsi. Legs II the same as I except that the lateral bands are less distinct. Legs III with the coxae, trochanters, and femora dark brown above and below, the other joints concolorous with legs I and II except for a dark spot at the junction of the patella and tibia above. Legs IV with the coxae and trochanters clear whitish yellow above and below but darker at the sides; the femora, distal portions of the patellae, tibiae, and metatarsi brown. Basal third of the abdomen whitish or buff, giving off posteriorly a more or less triangular mark which is bifurcate at the broad side. Middle third of the abdomen dark brown, outlined anteriorly by the whitish basal third and posteriorly by a broad buff portion which is as wide as the dorsum at that place (Fig. 4). Distal portion of the abdomen dark brown, concolorous with the middle third. Venter of the abdomen with a wide median dark band that begins at a point farther than usual below the epigastric furrow and extends to the spinnerets. The space between the epigastric furrow and the beginning of the median band is clear white in color.

First row of eyes slightly recurved, the median eyes contiguous and more than twice as large as the lateral. Ocular quadrangle wider than long (32/25), wider behind than in front (32/29), and occupying about one-third the total length of the cephalothorax. Eyes of the second row very small, closer

to the anterior lateral than to the posterior lateral. Upper margins of the chelicerae armed with seven well separated teeth of which the basal three are diminutive while the distal four are robust; the animal's left chelicera armed with eight teeth on the lower margin of which the basal five are close together, animal's right chelicera armed with seven teeth. Legs, I, 4.08 mm; II, 3.32 mm; III, 3.68 mm; IV, 5.60 mm.

First pair of legs with 2-2-2 spines on the tibiae below, and 2-2 on the metatarsi below. Second pair of legs with 2-2-2 spines on the tibiae below, and 2-2 spines on the metatarsi below. The third and fourth pairs are without spines. For the structure of the epigynum see Fig. 14.

Male.—Total length, 8.71 mm. Chelicerae, 2.02 mm long, Carapace, cephalic part, 1.70 mm long, 1.50 mm wide, thoracic part, 1.32 mm long, 1.14 mm wide. Pedicel, .35 mm long. Abdomen, 3.07 mm long, 1.06 mm wide. Carapace light brown above, the cephalic part somewhat darker than the thoracic, the eyes on dark spots. Sides lighter, bearing at the furrow that separates the two parts a wedge-shaped mark consisting of white hairs. Chelicerae light brown, concolorous with the thoracic part of the carapace. Sternum and endites light brown, the labium darker, these parts contrasting strongly with the coxae and trochanters of the anterior pairs of legs which are almost white. Dorsum of the abdomen like the female in its coloration having a broad buff portion distally and a dark brown middle third, the design at the basal third not so distinct as in the female (Fig. 9). Abdomen constricted anteriorly and bearing light bands which run laterad in the margin of the constriction. Venter lightest at the epigastric furrow, thereafter darkening posteriorly, bearing evidences of a median longitudinal dark band.

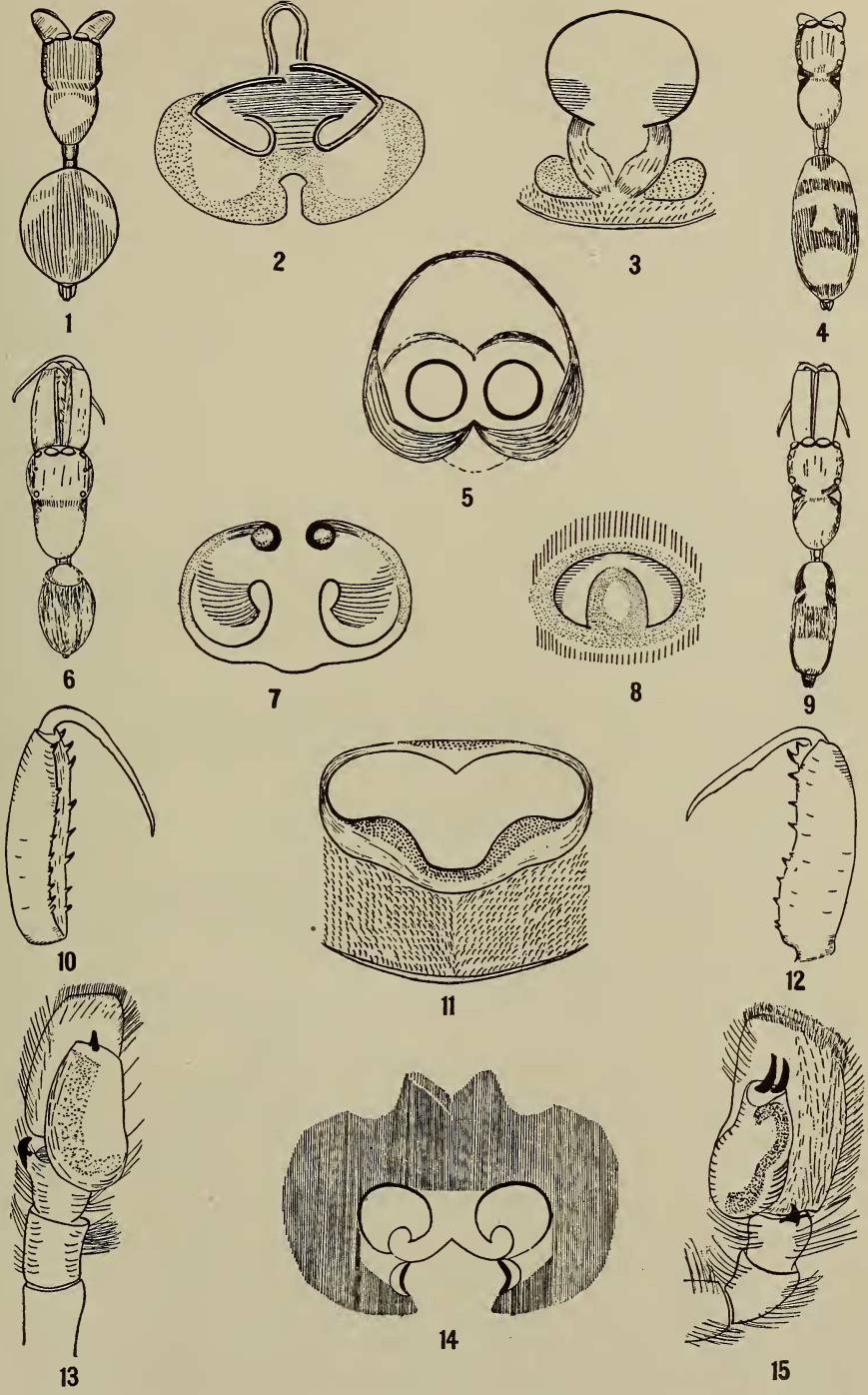
First row of eyes recurved, the anterior median closer to each other than to the anterior lateral and about twice the size of the latter. Eyes of the second row very small, closer to the anterior lateral than to the posterior lateral being removed from the former by a distance about five-sevenths as large as that which separates them from the latter. Ocular quadrangle wider than long (30/24), occupying more than one-third the total length of the cephalothorax, about as wide in front as behind. Chelicerae roughly wedge shaped, without a distinct lower margin, upper margin armed with ten teeth, of which the most distal points forward while the others are directed inward. For further details regarding the arrangement of the teeth see Fig. 12. The first pair of legs lacking, the second bears 1r-1r spines on the tibiae below. Legs, II, 3.27 mm; III, 4.10 mm; IV, 5.86 mm.

The palpal organ is characteristic of the genus, and presents little or no distinguishing features.

Type Locality.—China: female holotype and male allotype from Soochow, Kiangsu Province (N. Gist Gee). *Type*: U.S.N.M. Cat. No. 1164.

The unique design on the dorsum of the abdomen of this spider will serve to distinguish it from other oriental species of the genus.

Fig. 1.—*Myrmarachne grahami*, n. sp., female, dorsal view. Fig. 2.—*Myrmarachne grahami*, n. sp., epigynum. Fig. 3.—*Xysticus ephippiatus* Simon, epigynum. Fig. 4.—*Myrmarachne gisti*, n. sp., female, dorsal view. Fig. 5.—*Xysticus sicus*, n. sp., epigynum. Fig. 6.—*Myrmarachne vehemens*, n. sp., male, dorsal view. Fig. 7.—*Plexippus optabilis*, n. sp., epigynum. Fig. 8.—*Thomisus transversus*, n. sp., epigynum. Fig. 9.—*Myrmarachne gisti*, n. sp., male, dorsal view. Fig. 10.—*Myrmarachne vehemens*, n. sp., male, right chelicera. Fig. 11.—*Xysticus croceus*, n. sp., epigynum. Fig. 12.—*Myrmarachne gisti*, n. sp., male, left chelicera. Fig. 13.—*Rhene candida*, n. sp., male palpus. Fig. 14.—*Myrmarachne gisti*, n. sp., epigynum. Fig. 15.—*Rhene ipis*, n. sp., male palpus.



For explanation of Figs. 1-15, see bottom of opposite page.

Myrmarachne vehemens, n. sp.

Figs. 6, 10

Male.—Total length, 7.62 mm. Chelicerae, 2.48 mm long. Carapace, cephalic part, 1.54 mm long, 1.63 mm wide, thoracic part, 1.19 mm long, 1.45 mm wide. Pedicel, .13 mm long. Abdomen, 2.90 mm long, 1.45 mm wide. Carapace uniform dark brown above, the sides and the suture separating the two parts somewhat lighter. Eyes on dark spots, the spaces between those of the anterior row and the clypeus densely clothed with white hairs. Chelicerae lighter, of a reddish-brown hue, oblong and parallel extending directly forward. Sternum, coxae, and endites light brown, labium somewhat darker. Legs light brown above, the tibiae of the first and last pairs darker than the other joints. Abdomen dark brown above and at the sides, anteriorly with a well defined constriction whose margins are much lighter than the dorsum and the sides. Venter with a broad longitudinal dark band extending from the epigastric furrow to the spinnerets.

First row of eyes recurved, the anterior lateral separated from the anterior median, which are subcontiguous, by about three-fourths their diameter and much smaller than the latter (5/8). Eyes of the second row very small, closer to the anterior lateral than to the posterior lateral being removed from the former by a distance about five-eighths as large as that which separates them from the latter. Ocular quadrangle wider than long (32/27), somewhat wider behind than in front (32/30), occupying more than one-third the total length of the carapace. Upper cheliceral margin armed with eight robust teeth, lower margin armed with nine smaller teeth (Fig. 10). The legs are without spines below. Legs, I, 5.24 mm; II, 3.66 mm; III, 4.40 mm; IV, 6.42 mm.

Palpus characteristic of the genus presenting no important distinguishing features; in general it is similar to that of *M. lugubris* (Kulcz.).

Type Locality.—China: male holotype from Soochow, Kiangsu Province. (N. Gist Gee). *Type*: U.S.N.M. Cat. No. 1165.

This species is allied to *M. patellata* Strand, but differs from it in the dental armature and in lacking spines on the first tibiae below.

MYRMARACHNE INNERMICHELIS Bösenberg and Strand

Myrmarachne innermichelis Bösenberg and Strand. Abh. Senckenb. Ges. 30: 329 pl. 9, fig. 128, pl. 14, fig. 382, 1906.

Record.—China: Kiangsu Province, Soochow, male (N. Gist Gee).

MYRMARACHNE 7-DENTATA STRAND

Myrmarachne maxillosa var. *7-dentata* Strand. Zoologischer Anzeiger 31: 568, 1907.

Record.—China: Szechwan Province, Suifu, 1000 ft. October, 1930, male (D. C. Graham).

Plexippus optabilis, n. sp.

Fig. 7

Female.—Total length, 7.32 mm. Carapace, 3.27 mm long, 2.38 mm wide. Abdomen, 3.76 mm long, 2.47 mm wide. Dorsum of the carapace blackish for about a third of the length where the black region ends in an inverse triangle which provides an apex for a much lighter portion at the middle third. In this lighter portion are indications of a longitudinal line which gives off several branches on each side. The basal third of the carapace dark brown, expanding laterad along the sides giving them a brownish color. Clypeus

light with numerous long hairs. Chelicerae, sternum, and endites light brown, labium darker; coxae concolorous with the sternum but bearing dark markings at the sides. Legs orange, more or less annulate at the distal ends of the femora, patellae, and tibiae above; femora of the third and fourth pairs of legs with broad dark longitudinal bands on the prolateral surfaces. Dorsum of the abdomen with a median light band having anteriorly a longitudinal dark line, and breaking posteriorly into four large spots. Sides of the abdomen black and white, the white forming three more or less distinct stripes. Venter light with a distinct longitudinal dark band which is herringbone in pattern posteriorly.

First row of eyes slightly recurved, the medians closer to each other than to the laterals and about twice their size. Eyes of the second row midway between the anterior lateral and posterior lateral. Ocular quadrangle wider than long (43/32), about twice as wide before as behind, occupying more than one-third the total length of the carapace. Posterior lateral eyes about as large as the anterior lateral. Clypeus narrow, one-third the diameter of an anterior lateral eye. Each chelicera armed with a robust black tooth on the lower margin.

Tibiae I and II with 2-2 spines below, 1-1 on the prolateral surfaces, none above, metatarsi I and II with 2-2 spines below, none elsewhere; tibiae III and IV with 1-2 spines below, 2-2-2 above, metatarsi III and IV with 2-2 spines below, 2-2 above and 1 apical spine on each lateral surface. Legs, I, 5.00 mm; II, 4.24 mm; III, 5.56 mm; IV, 5.44 mm. For the structure of the epigynum see Fig. 7.

Type locality.—China: female holotype from Suifu, Szechwan Province, 1000 ft., October, 1930 (D. C. Graham). *Type*: U.S.N.M. Cat. No. 1166.

This species is referred to *Plexippus* because of its resemblance to *P. setipes* Karsch in general character. It differs from that species in the structure of the epigynum which is wider than long.

PLEXIPPUS CRASSIPES Karsch

Plexippus crassipes Karsch. Berliner Entom. Zeitschrift. 25: 38. 1881.

Record.—China: Szechwan Province, Gongoshien, August 1, 1934, female (D. C. Graham).

PLEXIPPUS SETIPES Karsch

Plexippus setipes Karsch. Verh. Ver. Rheinl. 36: 89. 1879.

Record.—China: Kiangsu Province, Soochow, 6 females (N. Gist Gee).

PLEXIPPUS PAYKULLI (Audouin)

Attus paykulli Audouin in Savigny, descr. Egypte 22: 172. 1827.

Hyllus mimus Chamberlin. Proc. United States Nat. Mus. 63: 33, pl. 7, fig. 50, 1924.

Records.—China: Szechwan Province, Suifu, 1000, ft., June 1925, female; Kiating, June, 1924, female (D. C. Graham). Kiangsu Province, Soochow, male (N. Gist Gee).

TELAMONIA BIFURCILINEA Bösenberg and Strand

Telamonia bifurcilinea Bösenberg and Strand. Abh. Senckenb. Naturf. Ges. 30: 331 pl. 9, fig. 153, pl. 13, fig. 357, 1906.

Record.—China: Szechwan Province, Chungking, 2000 ft., May 6, 1930, female (D. C. Graham).

EVARCHA ALBARIA (L. Koch)

Hasarius albarius L. Koch. Verh. Zool-Bot. Ges. Wien 27: 780 pl. 16, fig. 39, 1877.

Record.—China: Szechwan Province, South of Suifu, March 25, 1930, male (D. C. Graham).

Rhene ipis, n. sp.

Fig. 15

Male.—Total length, 5.74 mm. Carapace, 2.38 mm long, 2.87 mm at the widest place. Abdomen, 3.37 mm long, 2.47 mm wide. Dorsum of the carapace with a median dark brown portion which is as wide as the first row of eyes anteriorly, and which tapers thereafter to the third eye row where it expands again so that it has almost its anterior width at the caudal end of the carapace. The regions about the posterior eyes are reddish. Surrounding all the eyes but present most thickly at the anterior row are numerous white hairs. Sides of the carapace dark brown with white hairs. Clypeus thickly covered with white hairs. Sternum, basal portion of the endites, and labium dark brown, distal portion of the labium and endites light brown. Legs more or less concolorous with the sternum below, the coxae are somewhat lighter. First pair of legs much heavier and darker than the others. Femora of the posterior legs contrasting strongly with the other joints which are lighter. Abdomen light brown above, with three pairs of large dark pits, posteriorly are indications of lateral white hairs. Sides of the abdomen with white hairs, more concentrated anteriorly. Venter light brown, sparsely clothed with white hairs.

First row of eyes recurved, the medians closer to each other than to the laterals and more than twice their size. Eyes of the second row small, very close to the anterior lateral eyes being removed by about a diameter of the latter. Third row of eyes slightly smaller than the width of the carapace at that place, the eyes somewhat larger than the anterior lateral. Ocular quadrangle wider than long (56/42), much narrower in front than behind (40/56), occupying about four-fifths of the entire length of the cephalothorax. Clypeus equal in height to about one-half the diameter of an anterior lateral eye. Chelicerae with a single dark robust tooth on the lower margins. Anterior tibiae and metatarsi with 2-2 spines below. Legs, I, 6.60 mm; II, 3.92 mm; III, 4.00 mm; IV, 4.56 mm.

The tibia of the palpus bears a small black apophysis distally. The bulb itself is provided with two processes anteriorly which are arranged so as to be pincer-like. For further details regarding the structure of the palpus see Fig. 15.

Type locality.—China: male holotype from between Kiating and Yachow, Szechwan Province, July 29, 1929; male paratype from Suifu, Szechwan Province, September, 1929; two male paratypes from Mupin, Szechwan Province, 3500 ft., July, 1929 (D. C. Graham). *Type:* U.S.N.M. Cat. No. 1167.

This species is allied to *R. atrata* (Karsch), but differs from that species in lacking a distinct and conspicuous design on the dorsum of the abdomen.

Rhene candida, n. sp.

Fig. 13

Male.—Total length, 5.44 mm. Carapace, 2.67 mm long, 2.67 mm wide. Abdomen 2.97 mm long, 2.28 mm wide. The coloration of the carapace is similar to that of the previous species, *R. ipis*, but the central portion is not

so clearly demarcated from the lateral. In general the dorsum bears much fewer hairs, and in the alcoholic specimen these are not white. Sides of the carapace with distinct marginal stripes of white hairs. Each chelicera bears at its basal third a broad transverse band of white hairs. Sternum, coxae, labium and endites dark brown, labium with the distal portion lighter. The first pair of legs much darker and heavier than the others which are light brown below. The tarsi lighter, with black spots at the basal and distal ends. Dorsum of the abdomen light brown with indications of characteristic dark pits. The caudal end of the abdomen bears a pair of white bars on each lateral surface. Venter light brown with a white pubescence.

First row of eyes recurved, the medians closer to each other than to the laterals and about twice their size. Eyes of the second row very small, removed from the anterior lateral eyes by a distance greater than the diameter of the latter (6/5). Third row of eyes as wide as the carapace at that place, the eyes the same size as the anterior lateral. Ocular quadrangle wider than long (55/42), much narrower in front than behind (37/55), occupying about two-thirds the total length of the cephalothorax. Clypeus equal in height to three-fifths the diameter of an anterior lateral eye. Chelicerae with a single dark robust tooth on the lower margins. Tibiae and metatarsi I with 2-2 spines below. Legs, I, 5.20 mm; II, 3.80 mm; III, 3.68 mm; IV, 4.32 mm.

The bulb of the palpus is similar to that of *R. ipis*, but differs in the possession of a single, poorly defined process anteriorly rather than two processes. The tibial apophysis is pronounced and hook-like. For further details regarding the palpus see Fig. 13.

Type Locality.—China: male holotype from Suifu, Szechwan Province. September, 1929, (D. C. Graham). *Type*: U.S.N.M. Cat. No. 1168.

This species is readily identifiable by the broad, transverse bands of white hairs on the chelicerae.

Family THOMISIDAE

Xysticus croceus, n. sp.

Fig. 11

Xysticus ephippiatus Bösenberg and Strand. Abh. Senckenb. Naturf. Gesell. 30: 261, pl. 10, fig. 161, 1906 (not *Xysticus ephippiatus* Simon).

Female.—Total length, 7.92 mm. Carapace, 3.36 mm long, 3.17 mm wide. Sternum, 1.56 mm long, 1.16 mm wide. Abdomen, 4.65 mm long, 4.55 mm wide. Carapace with a median longitudinal light band about one-third its width which encloses two reddish brown parallel lines that originate between the posterior median eyes and extend to the middle of the cephalothorax. Sides of the carapace reddish brown, interrupted by a light submarginal stripe on each side. Sternum yellow with reddish maculations, labium and endites concolorous with the sternum, maculations on the coxae more dense except for clear basal and median portions. Femora of the anterior legs heavily punctate with reddish brown, those of the posterior legs much lighter, with large red spots on the preaxial surfaces; nearly all the joints with reddish brown spots at their distal ends. Each leg bears above a more or less distinct light stripe extending its length. The abdomen, which is in poor condition, is reddish brown with thin indistinct stripes at the edges, the venter and sides are lighter.

Eye rows strongly recurved, the first narrower than the second (40/45). Ratio of eyes: ALE:AME:PLE:PME = 5.5:3:4:3. Anterior median eyes separated by more than three times their diameter, twice their diameter

from the laterals. Posterior median eyes removed from each other and from the posterior lateral eyes by more than three diameters. Median ocular area slightly wider than long (17/16), as wide in front as behind. Clypeus about two and one-half times the diameter of an anterior median eye.

Legs heavily spined; tibiae I with 2-1p-2-2-2-1p-2-2-2 spines of various sizes below; tibiae II with six pairs of spines below; metatarsi I and II with 2-2-1r-2-2-2 spines below. Legs, I, 9, 12 mm; II, 9.12 mm; III, 5.88 mm; IV, 6.36 mm.

Epigynum broader than long, transverse, the sides heavily chitinized. There is no chitinized portion extending caudad almost to the epigastric furrow.

Type locality.—China: Female holotype from Suifu, Szechwan province, 1922 (D. C. Graham). *Type*: U.S.N.M. Cat. No. 1169.

This species was regarded as *X. ehippiatus* Simon by Bösenberg and Strand, the differences in the epigyna and spinal armature being explained on the basis of injury and technique of handling. The discovery of a Chinese spider that corresponds closely with the description of Simon's species together with another that appears to be identical with that of Bösenberg and Strand makes it apparent that two species are involved. These two spiders, *X. croceus*, new species, and *X. ehippiatus* Simon differ greatly in the structure of the epigyna, and are readily distinguished by these characters alone. Below *X. ehippiatus* Simon is redescribed, and details regarding the two epigyna are shown in Figs. 3 and 11.

XYSTICUS EPHIPIATUS Simon

Fig. 3

Xysticus ehippiatus Simon. Ann. Soc. Ent. France 10 (Ser. 5): 107, pl. 3, fig. 6, 1880.

Female.—Total length, 9.40 mm. Carapace, 3.46 mm long, 3.46 mm wide. Sternum 1.36 mm long, 1.16 mm wide. Abdomen, 6.14 mm long, 6.44 wide. Carapace reddish with the characteristic median light band bearing three reddish streaks that originate between the posterior median eyes and extend to the thoracic groove. From the groove a reddish bar extends obliquely cephalad on each side. Sides of the carapace reddish with lighter submarginal stripes and darker marginal ones. Clypeus and chelicerae with robust black hairs of various size projecting forward. Sternum reddish brown, the labium, endites, and coxae much lighter being yellowish. Legs concolorous with the sternum, the posterior pairs lighter than the anterior, all the legs lighter below than above. Abdomen dark reddish brown above, venter somewhat lighter.

Eye rows recurved, the first narrower than the second (39/46). Ratio of the eyes ALE:AME:PLE:PME = 6:3:4:3. Anterior median eyes removed from each other by more than three and one-half diameters, from the anterior lateral by two diameters. Eyes of the second row equidistant, separated by less than four times the diameter of a posterior median eye. Median ocular quadrangle wider than long (17/15), as wide in front as behind. Clypeus equal in height to about three times the diameter of an anterior median eye.

Legs heavily spined with the spinal armature irregular. The animal's right tibia I with 2-2-1p-2-2-2, right metatarsus I with 1p-2-2-1p-2-2-2 spines below, the animals left tibia I with 2-2-1p-2-2-2-2, left metatarsus I with 1p-2-2-2-2-2 spines below. Tibiae II with 2-2-2-2-2 spines below, right metatarsus II with 2-2-2-2-2, left metatarsus II with 1p-2-2-1p-2-2-2 spines below. Legs, I, 9.88 mm; II, 9.88 mm; III, 5.96 mm; IV, 6.20 mm.

Epigynum oval, with a chitinous extension extending caudad about half the distance to the epigastric furrow. For further details regarding the epigynum see Fig. 3.

Record.—China: Szechwan Province, Yao-Gi, Mupin, 8000 ft., July 14, 1929, female (D. C. Graham).

Xysticus sicus, n. sp.

Fig. 5

Female.—Total length, 7.62 mm. Carapace, 2.67 mm long, 2.77 mm wide, 1.62 mm wide in front. Abdomen, 5.04 mm long, 4.95 mm wide. Carapace with a broad median whitish band beginning at the anterior median eyes, expanding to include the lateral eyes, narrowing behind them, and then expanding again making the anterior portion shield-like. Posteriorly the band gives off wings so that the caudal border of the carapace is provided with a broad submarginal stripe; at the junction of each lateral wing with the central band is a large black spot above and below. The cephalic portion of the band with a complex design consisting of a reddish lanceolate of dagger-shaped mark on a brownish shield-shaped background. Sides of the carapace reddish with white spots. Clypeus brown below the lateral eyes, but whitish below the median. Chelicerae tan with whitish spots basally, much lighter distally. Labium and endites reddish brown lighter at the centers. Sternum whitish, maculate with red. Legs white and reddish, with the reddish predominating, distal portion of the femora with noticeable black spots above. Abdomen whitish, densely provided with red spots and markings.

First row of eyes recurved, the median much closer to the lateral than to each other, about half as large as the lateral. The posterior row recurved, the median eyes nearer to each other than to the laterals, and about two-thirds as large. Anterior and posterior eyes on well developed tubercles. Median ocular quadrangle broader than long (15/12), slightly wider in front than behind, the eyes subequal. Clypeus much higher than the diameter of an anterior lateral eye (8/5).

Legs spinose, although there are absences due to injury the arrangement seems to be as follows: the first two tibiae armed below with five pairs of robust spines, the last two with three pairs of weak ones, the first two metatarsi with five pairs beneath, the last two with two pairs of spines of which one pair is apical. Legs I, 8.71 mm; II, 8.71 mm; III, 5.88 mm; IV, 7.15 mm. For the structure of the epigynum see Fig. 5.

Type locality.—China: female holotype from Mupin, Szechwan Province, 3500 ft., July, 1929. *Type:* U.S.N.M. Cat. No. 1170.

This species is closely allied to *Xysticus lateralis atrimaculatus* Bösenberg and Strand, but differs from that species in having the epigynum provided with a pair of heavily chitinized orifices that almost completely fill the basal half of the atrium.

XYSTICUS TUNICATUS Bösenberg and Strand

Xysticus tunicatus Bösenberg and Strand. Abh. Senckenb. Naturf. Ges. 30: 263, pl. 10, fig. 176, 1906.

Record.—China: Szechwan Province, Summer, 1930, 3 females (D. C. Graham).

XYSTICUS SAGANUS Bösenberg and Strand

Xysticus saganus Bösenberg and Strand. Abh. Senckenb. Naturf. Ges. 30: 261 pl. 10, fig. 155, 1906.

Record.—China: Szechwan Province, between Kiating and Yachow, 1200 ft. July 29, 1929, male (D. C. Graham).

Thomisus transversus, n. sp.

Fig. 8

Female.—Total length, 8.91 mm. Carapace, 3.86 mm at the widest place, 2.28 mm wide in front, 3.56 mm long. Abdomen, 6.04 mm long, 10.00 mm wide. Carapace reddish with a longitudinal median white band which diverges anteriorly giving off a thin stripe on each side of which is a semi-circular mark. Sides of the carapace with indications of lighter stripes. Sternum, labium and endites yellowish brown. Legs concolorous with the sternum except for the tibiae of the posterior pairs which are dark brown contrasting strongly with the other joints. Abdomen yellowish white, darker at the anterior edges, with a dark median stripe. The five characteristic spots are present, one at the anterior edge of the dark median stripe and two on each side. Venter somewhat darker than the dorsum, bearing two longitudinal rows of three spots in the space between the epigastric furrow and the spinnerets.

First row of eyes recurved, narrower than the second row, which is also recurved, in the ratio of 5:6. Anterior median eyes two-thirds as large as the anterior lateral, and removed from each other by a distance eleven-fifteenths as great as that which separates them from the anterior lateral. Posterior median eyes two-thirds as large as the posterior lateral, and removed from each other by a distance greater than that which separates them from the posterior lateral (24/15). Median ocular quadrangle wider than long (28/16), narrower in front than behind (17/28). Clypeus slightly less in height than the length of the median ocular quadrangle (13/16).

Legs sparsely spinose; tibia I with 1p-1p-1p-2-1p spines below, Tibiae II with 1p-2 spines below. Legs, I, 10.74 mm; II, 10.64 mm; III, 6.37 mm, IV, lacking.

Epigynum small, resembling that of *T. onustoides* Bösenberg and Strand, but differing in the possession of a narrower septum which arises at the caudal border rather than the anterior. For further details regarding the epigynum see Fig. 8.

Type locality.—China: female holotype from Shin kai Shi, Szechwan province, 4000 ft., July 6, 1934 (D. C. Graham). U.S.N.M. Cat. No. 1171

THOMISUS ONUSTOIDES Bösenberg and Strand

Thomisus onustoides Bösenberg and Strand Abh. Senckenb. Naturf. Ges. 30: 251, pl. 10, fig. 166, 1906.

Record.—China: Szechwan Province, between Suifu and Kiating, June 2, 1930, male (D. C. Graham).